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Autore	Ponniah Paulraj
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Nota di contenuto	DATA MODELING FUNDAMENTALS; CONTENTS; PREFACE; ACKNOWLEDGMENTS; I INTRODUCTION TO DATA MODELING; 1 Data Modeling: An Overview; Chapter Objectives; Data Model Defined; What Is a Data Model?; Why Data Modeling?; Who Performs Data Modeling?; Information Levels; Classification of Information Levels; Data Models at Information Levels; Conceptual Data Modeling; Data Model Components; Data Modeling Steps; Data Model Quality; Significance of Data Model Quality; Data Model Characteristics; Ensuring Data Model Quality; Data System Development; Data System Development Life Cycle Roles and ResponsibilitiesModeling the Information Requirements; Applying Agile Modeling Principles; Data Modeling Approaches and Trends; Data Modeling Approaches; Modeling for Data Warehouse; Other Modeling Trends; Chapter Summary; Review Questions; 2 Methods, Techniques, and Symbols; Chapter Objectives; Data Modeling Approaches; Semantic Modeling; Relational Modeling; Entity-Relationship Modeling; Binary Modeling; Methods and Techniques; Peter Chen (E-R) Modeling; Information Engineering; Integration

Definition for Information Modeling; Richard Barker's Model; Object-Role Modeling  
eXtensible Markup Language Summary and Comments; Unified Modeling Language; Data Modeling Using UML; UML in the Development Process; Chapter Summary; Review Questions; II DATA MODELING FUNDAMENTALS; 3 Anatomy of a Data Model; Chapter Objectives; Data Model Composition; Models at Different Levels; Conceptual Model: Review Procedure; Conceptual Model: Identifying Components; Case Study; Description; E-R Model; UML Model; Creation of Models; User Views; View Integration; Entity Types; Specialization/Generalization; Relationships; Attributes; Identifiers; Review of the Model Diagram  
Logical Model: Overview Model Components; Transformation Steps; Relational Model; Physical Model: Overview; Model Components; Transformation Steps; Chapter Summary; Review Questions; 4 Objects or Entities in Detail; Chapter Objectives; Entity Types or Object Sets; Comprehensive Definition; Identifying Entity Types; Homonyms and Synonyms; Category of Entity Types; Exploring Dependencies; Dependent or Weak Entity Types; Classifying Dependencies; Representation in the Model; Generalization and Specialization; Why Generalize or Specialize?; Supertypes and Subtypes; Generalization Hierarchy  
Inheritance of Attributes Inheritance of Relationships; Constraints; Rules Summarized; Special Cases and Exceptions; Recursive Structures; Conceptual and Physical; Assembly Structures; Entity Type Versus Attribute; Entity Type Versus Relationship; Modeling Time Dimension; Categorization; Entity Validation Checklist; Completeness; Correctness; Chapter Summary; Review Questions; 5 Attributes and Identifiers in Detail; Chapter Objectives; Attributes; Properties or Characteristics; Attributes as Data; Attribute Values; Names and Descriptions; Attribute Domains; Definition of a Domain  
Domain Information

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## Sommario/riassunto

The purpose of this book is to provide a practical approach for IT professionals to acquire the necessary knowledge and expertise in data modeling to function effectively. It begins with an overview of basic data modeling concepts, introduces the methods and techniques, provides a comprehensive case study to present the details of the data model components, covers the implementation of the data model with emphasis on quality components, and concludes with a presentation of a realistic approach to data modeling. It clearly describes how a generic data model is created to represent truly the ent

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